Customer No. 24498
Attorney Docket No. PU020417
Office Action Date: July 8, 2008

REMARKS

Claims 1-17 are currently pending and stand rejected.

Reconsideration of the claim rejections is requested in view of the following remarks.

Claims 1-12

Claims 1-12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Haddock (U.S. Patent No. 6,678,248) in view of Metin (U.S. Patent Publication 2002/0031142) and Golden (U.S. Patent No. 6,563,793). Applicants respectfully assert that claims 1 and 9, at the very least, are patentable and non-obvious over the combination of Haddock, Metin and Golden.

With regard to claims 1 and 9, the combination of Haddock, Metin and Golden does not teach or fairly suggest, for example, a switch apparatus for providing reserved connections between end stations, wherein the switch *comprises a plurality of output queues . . . that comprise at least one additional output queue that is established and associated with reserved connection data packets for one reserved connection path at a given time*, as essentially recited in claims 1 and 9.

Applicants respectfully maintain that, for similar reasons presented by applicants in the previously filed Amendment on 9 April 2008, Haddock does not teach a plurality of output queues with at least *one additional output queue that is established and associated with reserved connection data packets for one reserved connection path at a given time*, as essentially recited. Haddock teaches a policy based mechanism for, among other things, prioritizing traffic within a network. Haddock accomplishes prioritization by using a plurality of QoS queues (see e.g., FIG. 1B). However, as the Examiner acknowledges, Haddock does not disclose packets that include requests for *reserved connections*. Further, Haddock fails to teach or suggest switches that *establish reserved connection paths* and *allocate available bandwidth for the reserved*

connection path in response to reserved connection requests. As a result, it is quite clear that Haddock does not teach a process of establishing and associating an output queue with reserved connection data packets for one reserved connection path at a given time, as essentially recited in claims 1 and 9.

Metin does not cure the deficiencies of Haddock because, at least, Metin does not teach or suggest *an additional queue that is set aside for one reserved connection at a given time*. Metin discloses a switch with a high-priority queue and a low priority queue (see e.g. FIG. 7). However, Metin specifically teaches that the high-priority queue is used for servicing frames associated with different high priority connection packets hosts in different VLANs (e.g., VLAN 1 and VLAN 2). FIGs. 4-7 clearly show that packets to be transmitted from Host A to C in VLAN 1 and packets to be transmitted from Host B to Host C in VLAN 2 are stored in the same output buffer (queue) at a given time.

The present invention, however, includes one queue per reserved connection. Thus, for example, in an embodiment of the present invention having two queues for reserved connections, the situation above has quite a different result. In such an embodiment of the present invention, all packets for communication in group VLAN 1 (between Host A and C) would be stored in one reserved connection queue and all packets for communications in VLAN 2 (between Host B and C) would be stored in a second, different reserved connection queue. Such a solution is not even remotely suggested by Metin. The examiner suggests that limiting the logical groups in Metin to two hosts suggests the present invention. The above example, where VLAN 1 and VLAN 2 are both logical groups with only two hosts, demonstrates that even in those circumstances, Metin does not teach a process of establishing and *associating an output queue with reserved*

connection data packets for one reserved connection path at a given time, as essentially claimed in claims 1 and 9.

Further, Golden fails to cure the deficiencies of Haddock and Metin. While Golden discloses a network with reserved connection capability, Golden does not teach or remotely suggest *a switch apparatus* for providing reserved connections between end stations, wherein the switch *comprises a plurality of output queues . . . that comprise at least one additional output queue that is established and associated with reserved connection data packets for one reserved connection path at a given time*, as essentially claimed in claims 1 and 9.

In fact, Golden is very different from the present invention. Golden discloses a network having an enterprise control point (ECP) which communicates with various switches in the network via a reserved signaling channel. Golden does not teach that the ECP is a switch with a plurality of output queues, nor does he teach that the switches in the network have a plurality of output queues with an additional queue for reserved communications. The ECP is a separate device in the network which essentially manages all reserved communication requests in the network and communicates with the switches to set up a reserved path. In the present invention, however, it is the switch, itself, that manages reservation requests and sets up reserved communication paths.

Moreover, while Golden does describe that a switch in communication with the ECP may maintain separate ports for high-priority traffic, Golden does not disclose or suggest a switch with an *additional output queue that is established and associated with reserved connection data packets for one reserved connection path at a given time*. In fact, Golden implies a structure much like that of Metin (where all high-priority traffic is mixed into the same queue or queues) when Golden describes "*queues* for priority traffic" and "lower priority queues... which contend

for access to ports involved in reserved connections" (col. 11, lines 57-62). It is clear from this description that Golden did not contemplate an *additional output queue that is established and associated with reserved connection data packets*.

For at least the above reasons, the combined teachings of Haddock, Metin and Golden fail to teach or fairly suggest various features of claims 1 and 9. As such, claims 1 and 9 are patentable over the suggested combination. Moreover, claims 2-8 and 10-12 are patentable over the combination of Haddock, Metin and Golden at least by virtue of their dependence from claims 1 or 9. Withdrawal of the obviousness rejection is requested.

Claims 13-17

Claims 13-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Metin in view of Golden. Applicants respectfully assert that the combination of Metin and Golden does not disclose or suggest a method for providing a reserved connection between end stations, in a network capable of providing prioritized communications, which includes a step of, e.g., *determining, by a first network switch device, whether sufficient bandwidth is available for establishing a reserved connection path; and, if so, establishing a reserved connection path between end stations in a network and reserving resources along the reserved connection path to provide the requested reserved connection along the reserved connection path, including allocating an output queue within said first network switch device for buffering only those reserved connection data packets to be transmitted on the reserved connection path,* as essentially claimed in claim 13.

For reasons discussed above, Metin does not teach or suggest *allocating an output queue within said first network switch device for buffering only those reserved connection data packets*

to be transmitted on the reserved connection path. To reiterate, Metin specifically teaches frames associated with different high priority connection packets between hosts in different VLANs (e.g., VLAN 1 and VLAN 2) being serviced by the same high-priority queue. As demonstrated above, the number hosts present in each VLAN is irrelevant. Even if the VLANs are made up of only two hosts, those high-priority VLANs will nevertheless share the same output queue.

Once again, Golden does not cure the deficiencies of Metin. First, Golden does not teach *determining, by a first network switch device, whether sufficient bandwidth is available for establishing a reserved connection path; and, if so, establishing a reserved connection path between end stations in a network and reserving resources along the reserved connection path to provide the requested reserved connection along the reserved connection path,* as essentially claimed in claim 13. In Golden, it is the ECP, not a switch, that determines the available bandwidth and reserves the connection path.

Moreover, once the reserved connections are made, Golden does not teach or suggest the exact method by which the switches use to transmit the prioritized data. In fact, Golden "is operative whether or not ... switches maintain more than one port queue" (col. 11, lines 61-64). Further, as stated above, when Golden does discuss the queues within a switch, Golden does not teach or suggest *allocating an output queue within said first network switch device for buffering only those reserved connection data packets to be transmitted on the reserved connection path,* as essentially claimed in claim 13. Once again, as stated above, Golden actually implies the opposite.

Accordingly, claim 13 is believed to be distinct and patentable over the combination of Metin and Golden. Claims 14-17 are patentable over Metin and Golden, at the very least, by virtue of their dependence from claim 13. Withdrawal of the obviousness rejections is requested.

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It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's Deposit Account No. 07-0832.

Respectfully submitted,

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